

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1-25. (Cancelled).

26. (Currently Amended): A purified polynucleotide ~~consisting of~~ comprising an open reading frame of the Rv3908 gene of *M. tuberculosis* (SEQ ID NO: 30) contiguous nucleotides of the Rv3908 locus of a *Mycobacterium tuberculosis* strain including codon 48 of said the locus, wherein codon 48 of SEQ ID NO: 30 is GGG, or a polynucleotide fully complementary thereto.

27. (Cancelled).

28. (Currently Amended): The purified polynucleotide as claimed in claim 26, which comprises ~~contains the complement of SEQ ID NO: 1, SEQ ID NO: 2 SEQ ID NO: 3, SEQ ID NO: 4, or both SEQ ID NOS: 1 and 2 SEQ ID NOS: 3 and 4, or the complement of SEQ ID NO: 1, SEQ ID NO: 2 SEQ ID NO: 3, SEQ ID NO: 4, or both SEQ ID NOS: 1 and 2 SEQ ID NOS: 3 and 4.~~

29. (Currently Amended): A purified polynucleotide ~~consisting of~~ comprising an open reading frame of the *MutT2* gene of *M. tuberculosis* (SEQ ID NO: 29) contiguous nucleotides of the *mutT2* locus of a *Mycobacterium tuberculosis* strain including codon

~~58 of said locus~~, wherein codon 58 of SEQ ID NO: 29 is CGA, or a polynucleotide fully complementary thereto.

30. (Cancelled).

31. (Currently Amended): The purified polynucleotide as claimed In claim 29, which comprises ~~contains the complement of SEQ ID NO: 3, SEQ ID NO: 4 SEQ ID NO: 1, SEQ ID NO: 2, or both SEQ ID NOS: 3 and 4 SEQ ID NOS: 1 and 2, or the complement of SEQ ID NO: 3, SEQ ID NO: 4 SEQ ID NO: 1, SEQ ID NO: 2, or both SEQ ID NOS: 3 and 4 SEQ ID NOS: 1 and 2.~~

32. (Currently Amended): A purified polynucleotide consisting of ~~comprising~~ a nucleotide sequence selected from: (A) SEQ ID NO: 1; (B) SEQ ID NO: 2; (C) SEQ ID NO: 3; (D) SEQ ID NO: 4; (E) SEQ ID NO: 5; (F) SEQ ID NO: 6; (G) SEQ ID NO: 7; and (H) SEQ ID NO: 8.

33. (Currently Amended): A purified polynucleotide that hybridizes specifically under stringent conditions with one or more polynucleotide sequences selected from SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, and SEQ ID NO: 8.

34. (Currently Amended): A kit for detecting *M. tuberculosis*, said kit comprising:

(A) a polynucleotide probe ~~according to claim 1~~ that hybridizes under high stringency conditions with a purified polynucleotide selected from SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, and SEQ ID NO: 31, ~~and SEQ ID NO: 3;~~ and

(B) reagents to perform a nucleic acid hybridization reaction.

35. (Currently Amended): A kit for detecting *M. tuberculosis*, said kit comprising:

(A) [[a]] at least one primer pair according to claim 15 selected from (i) SEQ ID NO: 1, and SEQ ID NO: 2; (ii) SEQ ID NO: 3, and SEQ ID NO: 4; (iii) SEQ ID NO: 5, and SEQ ID NO: 6; and (iv) SEQ ID NO: 7, and SEQ ID NO: 8; and

(B) reagents to perform a nucleic acid amplification reaction.

36. (Original): An *E. coli* strain containing the plasmid pMYC2501 deposited at the C.N.C.M. on Aug. 20, 2001, under Accession No. I-2711.

37. (Original): An *E. coli* strain containing the plasmid pMYC2502 deposited at the C.N.C.M. on Aug. 20, 2001, under Accession No. I-2712.

38. (Original): An *E. coli* strain containing the plasmid pMYC2503 deposited at the C.N.C.M. on Aug. 20, 2001, under Accession No. I-2713.

39. (Original): A purified polynucleotide sequence delimited upstream by the polynucleotide sequence of SEQ ID NO: 1 and downstream by the polynucleotide

sequence of SEQ ID NO: 2, wherein the purified polynucleotide sequence comprises SEQ ID NO: 29.

40. (Original): A purified polynucleotide sequence delimited upstream by the polynucleotide sequence of SEQ ID NO: 3 and downstream by the polynucleotide sequence of SEQ ID NO: 4, wherein the purified polynucleotide sequence comprises SEQ ID NO: 30.

41. (Original): A purified polynucleotide sequence delimited upstream by the polynucleotide sequence of SEQ ID NO: 5 and downstream by the polynucleotide sequence of SEQ ID NO: 6, wherein the purified polynucleotide sequence comprises SEQ ID NO: 27.

42. (Currently Amended): A purified polynucleotide sequence delimited upstream by the polynucleotide sequence of SEQ ID NO: 7 and downstream by the polynucleotide sequence of SEQ ID NO: 8, wherein the purified polynucleotide sequence comprises SEQ ID NO: 28.

43. (Original): A purified polynucleotide sequence originating from a gene of *M. tuberculosis* comprising a mutator allele.

44 (Cancelled).

45. (Currently Amended): A polynucleotide selected from: ~~a polynucleotide fragment comprising SEQ ID NO: 1 (mutT2-1); a polynucleotide fragment comprising SEQ ID NO: 2 (mutT2-2); a polynucleotide fragment comprising SEQ ID NO: 3 (Rv3908-1); a polynucleotide fragment comprising SEQ ID NO: 4 (Rv3908-2); a polynucleotide fragment comprising SEQ ID NO: 5 (alkA-1); a polynucleotide fragment comprising SEQ ID NO: 6 (alkA-2); a polynucleotide fragment comprising SEQ ID NO: 7 (ogt-1); a polynucleotide fragment comprising SEQ ID NO: 8 (ogt-2);~~ a purified polynucleotide of 1488 bp designated as alkA and consisting of SEQ ID NO: 27; a purified polynucleotide of 495 bp designated as ogt and consisting of SEQ ID NO: 28; a purified polynucleotide of 423 bp designated mutT2 and consisting of SEQ ID NO: 29; a purified polynucleotide of 744 bp designated Rv3908 and consisting of SEQ ID NO: 30; a purified polynucleotide of 912 bp designated mutY and consisting of SEQ ID NO: 31; a purified polynucleotide of 2406 bp designated Rv3909 and consisting of SEQ ID NO: 32; ~~a purified polynucleotide comprising SEQ ID NO: 27 (alkA); a purified polynucleotide comprising SEQ ID NO: 28 (ogt); a purified polynucleotide comprising SEQ ID NO: 29 (mutT2); a purified polynucleotide comprising SEQ ID NO: 30 (Rv3908); a purified polynucleotide comprising SEQ ID NO: 31 (mutY); and a purified polynucleotide comprising SEQ ID NO: 32 (Rv3909).~~

46. (New): A polynucleotide selected from: a purified cDNA comprising SEQ ID NO: 27 (alkA); a purified cDNA comprising SEQ ID NO: 28 (ogt); a purified cDNA comprising SEQ ID NO: 29 (mutT2); a purified polynucleotide comprising SEQ ID NO:

30 (Rv3908); a purified cDNA comprising SEQ ID NO: 31 (mutY); and a purified cDNA comprising SEQ ID NO: 32 (Rv3909).

47. (New): A polynucleotide selected from: a purified polynucleotide comprising SEQ ID NO: 6, a purified polynucleotide comprising SEQ ID NO: 7, and a purified polynucleotide comprising SEQ ID NO: 8.

48. (New) : The purified polynucleotide sequence of claim 43, delimited upstream by the polynucleotide sequence of SEQ ID NO:1 and downstream by the polynucleotide sequence of SEQ ID NO:2, wherein the purified polynucleotide sequence comprises SEQ ID NO:29, except that codon 58 is CGA instead of GGA.

49. (New) : The purified polynucleotide sequence of claim 43, delimited upstream by the polynucleotide sequence of SEQ ID NO:3 and downstream by the polynucleotide sequence of SEQ ID NO:4, wherein the purified polynucleotide sequence comprises SEQ ID NO:30, except that codon 48 is GGG instead of CGG.

50. (New) : The purified polynucleotide sequence of claim 43 delimited upstream by the polynucleotide sequence of SEQ ID NO:5 and downstream by the polynucleotide sequence of SEQ ID NO:6, wherein the purified polynucleotide sequence comprises SEQ ID NO:27, except that codon 12 is GTC instead of ATC.

51. (New) : The purified polynucleotide sequence of claim 43 delimited upstream by the polynucleotide sequence of SEQ ID NO:7 and downstream by the polynucleotide sequence of SEQ ID NO:8, wherein the purified polynucleotide sequence comprises SEQ ID NO:28, except that codon 37 is CTC instead of CGC.

52. (New) : A kit for detecting *M. tuberculosis* of Beijing genotype that has the MDR phenotype, said kit comprising :

- a) one or more polynucleotide probe selected from the purified polynucleotide sequence as claimed in any one of claims 48 to 51; and
- b) reagents to perform a nucleic acid hybridization reaction.